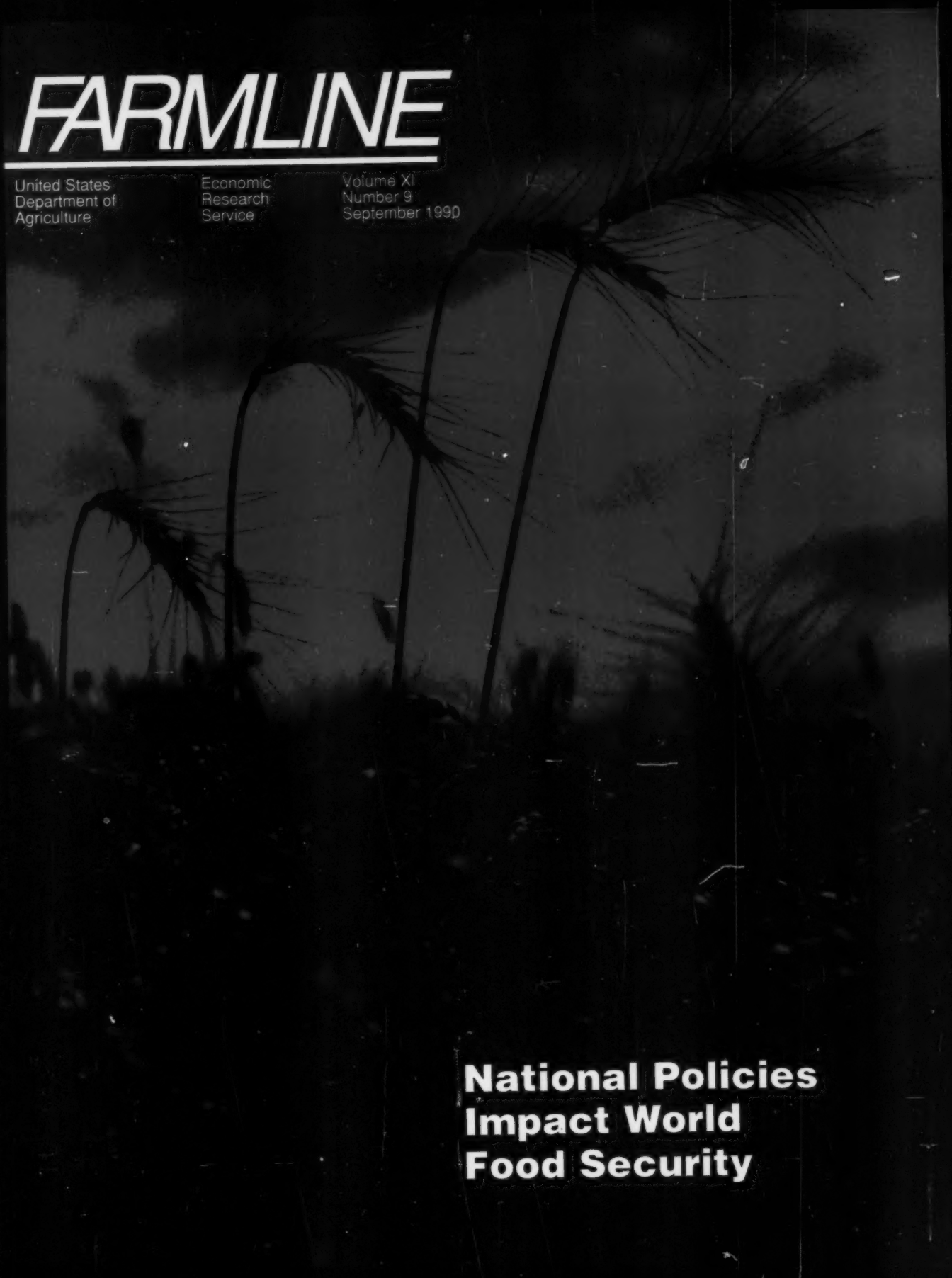
FARMLINE

United States Department of Agriculture

Economic Research Service

Volume XI
Number 9
September 1990



National Policies Impact World Food Security

Editor
Jack Harrison

Staff Writers
Judith Foulke
Priscilla Glynn
Doug Martinez

Art Director
Barbara Allen

Editorial Assistant
Martha Evans

Composition
Joyce Bailey

Cover Design
Victor Newman

(202) 786-1494

Contents of this magazine may be reprinted without permission.

FARMLINE is published 11 times a year by USDA's Economic Research Service. Send questions, requests, and editorial comments to *FARMLINE*, Room 228 USDA, 1301 New York Avenue NW, Washington, DC 20005-4789.

Please include your mailing label with change-of-address and other requests related to your subscription.

Subscriber price is $12 per year to U.S. addresses ($15 foreign). Individual copies are $8. For fast, personal service, call our order desk toll-free at **1-800-999-6779** (open weekdays 8:30-5:00 Eastern time), and charge your order to MasterCard or VISA. When ordering by mail, make your check or money order payable to ERS-NASS and send to: ERS-NASS, P.O. Box 1608, Rockville, MD 20849-1608. Ask for *FARMLINE*. Include your complete address with ZIP code and daytime telephone number. Sorry, but refunds cannot be issued.

Use of commercial or trade names does not imply approval or endorsement by USDA.

PERSPECTIVES

WORLD oilseed production in 1990/91 is expected to be up 4 percent, but U.S. production is likely to be down 2 percent. The U.S. decrease will be in soybeans, which account for about 85 percent of U.S.-grown oilseeds. Higher U.S. output is expected in cottonseed, peanuts, sunflowerseed, and flaxseed.

U.S. farmers planted an estimated 57.7 million acres of soybeans this year, according to USDA's August 9 Crop Production report. This is 1.7 million acres below the March forecast. Despite wet weather that delayed corn planting in the Corn Belt, farmers apparently did not shift to soybeans as much as first expected. With corn prices over $2.50 a bushel and soybean prices lagging in the $5.70 to $5.90 range, producers seemed to prefer the possibility of lower corn yields to that of lower priced soybeans, according to economist James D. Schaub of USDA's Economic Research Service.

The U.S. soybean crop, like corn, was a little late being planted this year, but yields still could be good, Schaub says. The crop was in mostly good to fair condition during July. Production is forecast at 1.84 billion bushels (50.0 million metric tons), down 4.7 percent from the previous year. The United States accounts for about half of world soybean production.

World oilseed production for 1990/91 is forecast at 219.2 million metric tons, which would be a record. The greatest expansion is likely in rapeseed, cottonseed, and sunflowerseed. Oilseed output is expected to be up significantly in Canada, China and the European Community (EC). Soybean production should be slightly higher in South America. Flaxseed, rapeseed (including varieties known as canola), copra and palm kernel are other crops included in the world oilseed total—though produced in negligible quantities or not at all in this country.

Domestic demand for soybean crush is forecast at 1.17 billion bushels and reflects a robust demand for meal domestically and for export in 1990/91, Schaub says. U.S. demand is likely to be 22.5 million tons and export demand 5.35 million tons. Soybean meal prices are likely to range between $165 and $190 per ton in 1990/91. Season-average soybean prices are expected to be between $5.50 and $7.00 a bushel, compared to an estimated $5.70 in 1989/90.

Domestic soybean oil use is projected at 12.0 billion pounds in 1990/91, unchanged from the previous year. Soybean oil exports of 1.3 billion pounds for the coming year would be down from 1.5 billion in 1989/90. Soybean oil prices are expected to average between 23.5 and 26.5 cents a pound in the coming year, up slightly from 22.2 cents in 1989/90.

U.S. cottonseed production is expected to increase nearly 25 percent to 5.8 million tons in 1990. Expected price ranges are $90-$125 a ton for seed and $140-$170 for meal. A gain in peanut acreage from 1.665 million to 1.734 million is forecast to produce a crop of 4.18 billion pounds in 1990, up 5 percent. Sunflowerseed production is expected to reach 1.1 million metric tons in 1990/91, up 35 percent from a year earlier. Sunflower oil prices increased to an estimated $535 per ton in 1989/90 and are expected to strengthen in the coming year.

— Jack Harrison

FARMLINE

AGRICULTURE...NATURAL RESOURCES...RURAL DEVELOPMENT
Practical economic intelligence from USDA's Economic Research Service

FEATURES

National Policies Impact World Food Security *by Priscilla Glynn* 2

Global grain consumption has outpaced production the past few years, bringing renewed concern for world food security. Individual countries are not isolated in this matter, because national policies can have far-reaching effects.

Diet-Health Messages Sometimes Garbled *by Doug Martinez* 6

The warnings and discussions of the ways diet can affect health have caused many Americans to make changes in the sources of their dietary fat. But total fat intake has remained about the same.

World Food-Aid Efforts Become More Altruistic *by Al Veerhoff* 12

Nations that are the major sources of food aid for countries in need seem to be changing their motives. More emphasis is being put on the needs of the recipient countries and less on the domestic concerns of the donor nations.

DEPARTMENTS

Reports in the News: Farm Structure; World Subsidies 16

Farmline Trends: Monthly Price Monitor 17

SPECIAL IN THIS ISSUE

Dialing Up Economic Information 8

This handy guide provides telephone numbers of key specialists in USDA's Economic Research Service and National Agricultural Statistics Service. The listings are arranged by subject to help you find the right person to answer questions about crops, livestock, farmland prices, trade, and other topics. You can pull out the guide and save it.

National Policies Impact World Food Security

In the 1990/91 crop year, global grain production is estimated to exceed consumption by less than 1 percent. This match between production and consumption comes after 3 consecutive years in which consumption outpaced production, generating the largest deficit since at least 1960. Some of the shortfall can be attributed to droughts in major producing regions, such as North America. "However, recent developments are also due to policies of major producing countries, including the United States, and illustrate how policy changes in these countries affect world food security," explains economist Mark E. Smith of USDA's Economic Research Service.

"World food security" is defined as the availability and affordability of food (mainly grains) to meet the consumption needs of all people in all countries. Ultimately, the security of the world's food supply rests on economic growth that is vigorous enough to allow individuals and countries to produce or buy the food they need, Smith says.

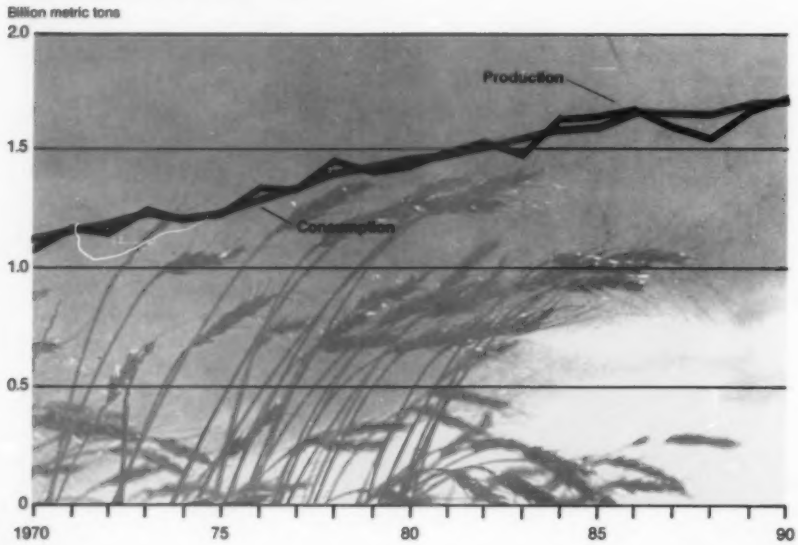
Circumstances affecting an individual country's food security include such demand factors as population growth, income growth and distribution, export revenues, and the country's indebtedness. They also include supply factors such as production, stocks, the availability of imports, and economic incentives to raise food to satisfy domestic needs.

In the short term, global food security is strengthened by larger world grain supplies.

In the short term, global food security is strengthened by larger world supplies and consequently lower prices, a combination that helps poor countries with food deficits obtain commodities through the commercial market or food-aid programs. But over the long haul, low prices to farmers discourage production.

The governments of exporting countries influence world food security through their policies, which can have significant effects on both production and prices, the economist says. Because of its usual position as a major (if not the world's largest) grain producer, exporter, holder of stocks, and provider of food aid, the United States has a great impact on food security through its effects on prices, production, and stocks.

World Grain Consumption Has Exceeded Production in Three of the Last Four Years



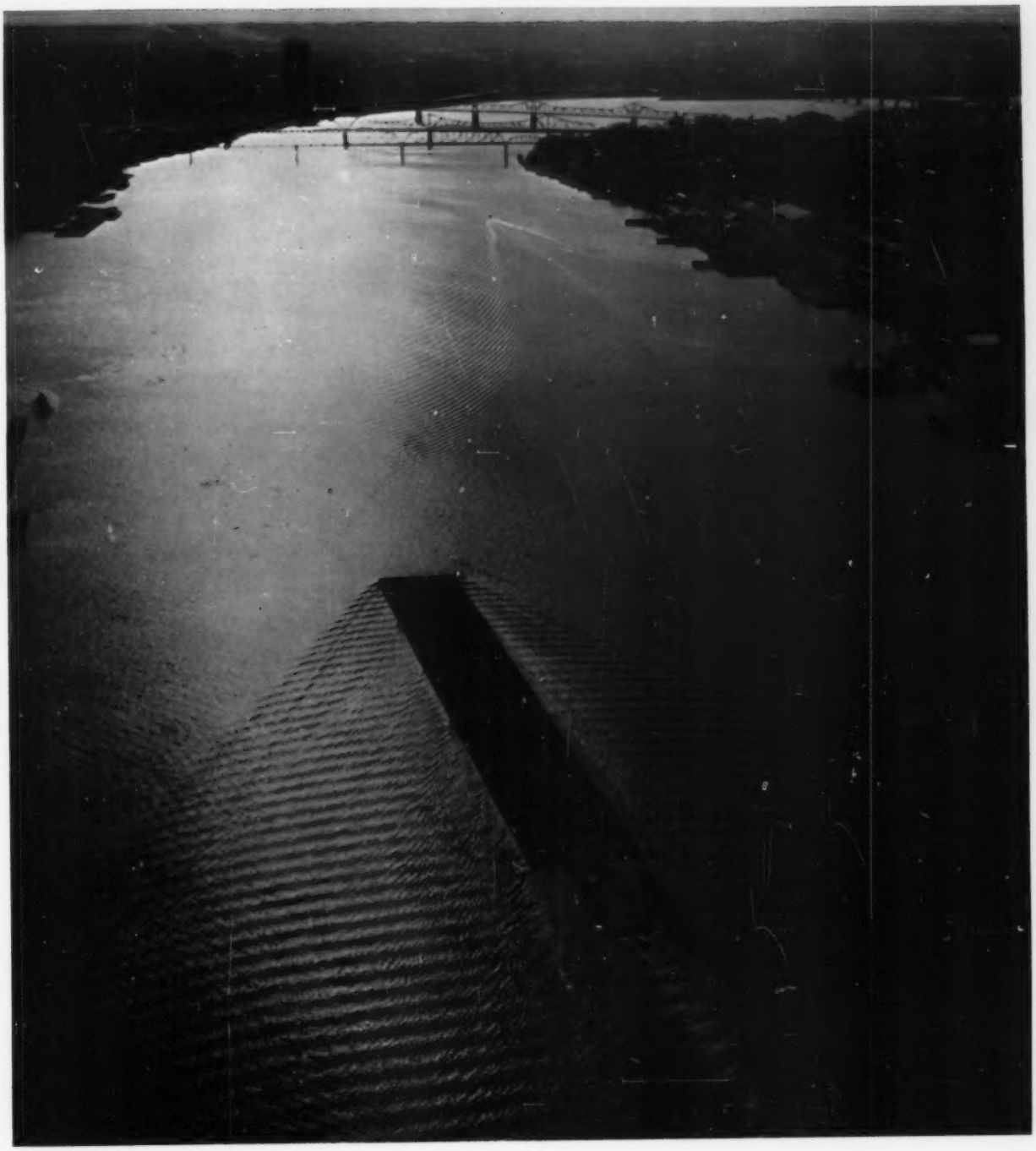
FSA Has Varied Influences

Through the Food Security Act of 1985 (FSA), the Government tried to close the gap between supply and demand by making the farm sector less dependent on Federal benefits and more sensitive to market signals. The FSA authorized several changes, including gradual reductions in target prices and loan rates. These reductions allowed U.S. commodity prices to fall, making them more competitive on the world market, and decreased the support U.S. farm programs lent to world agricultural prices. During periods when high U.S. prices supported world prices, foreign competitors could boost production and sometimes profitably undercut U.S. export prices.

To cut excess production, reduce soil erosion, and improve environmental quality, the FSA authorized the Conservation Reserve Program (CRP). Under the CRP, producers receive payments for devoting portions of their acreage to conservation uses for 10 years. The CRP encourages the removal of highly erodible land from agricultural production. As of August 1989, about 34 million acres (mostly in wheat producing regions) had been enrolled in the program.

The FSA also established the Export Enhancement Program (EEP) to help U.S. exporters compete in targeted markets where other nations provide export subsidies. The EEP subsidizes U.S. exporters through commodity certificates, which they can exchange for any commodity in CCC stocks. This program boosts exports and reduces Government stocks.

These policies have affected U.S. grain stocks. The United States has traditionally held a large proportion of world wheat and coarse grain stocks—a proportion that has at times approached one-half of all world stocks. Over the last decade, U.S. wheat



An Overview of U.S. Farm Policies

One of the major objectives of U.S. agricultural policy is to support U.S. farm income, and the chief domestic programs designed to do this are linked to production. The Commodity Credit Corporation (CCC) was created in the 1930's to help maintain farm income by giving loans to producers of certain commodities, including grains, who participate in stabilization programs. The amount of a loan is based on the amount of the crop provided as collateral and a set dollar value per unit of production, called the loan rate.

If, when the loan matures, the market price of the crop is too low to make loan repayment profitable, the farmer can forfeit the crop to the CCC. Under the terms of the loan, the CCC has no recourse to collect any more of the loan—hence the term "nonrecourse" loan. "The program acts to support a minimum price for program commodities in times of excess production," says ERS economist Mark E. Smith, "because the Government buys supplies that producers enrolled in the program cannot sell."

Deficiency payments are those the Government makes to farmers who participate in wheat, feed grain, rice, or cotton programs. The deficiency payment rate is based on the difference between a price set by law (the target price) and either the market price for a period specified by law or the loan rate, whichever is higher. A particular farmer's total payment equals the payment rate, times the eligible acreage planted for harvest, times the program yield established for that farm.

"When U.S. prices are held at a higher level than that which would enable the market to clear, it prompts both domestic and foreign producers to boost production," explains Smith. "It can also lead to inefficient allocation of resources in the United States and other countries, because it encourages producers to shift more resources to agricultural production than they otherwise would."

Oversupplies also increase the costs of these programs to the Government by heightening both deficiency payments and the costs associated with loan defaults, crop forfeitures, and CCC storage. Indeed, the CCC has at times acquired massive stock surpluses.

Because the funds farmers can obtain through nonrecourse loans and deficiency payments are linked to crop size, these programs encourage production and can provide an incentive to overproduce certain commodities. Therefore, to control the buildup of surpluses, participants are often required to idle land or limit acreage to be eligible for loans and deficiency payments.

The Acreage Reduction Program, for example, helps prevent oversupply by requiring producers who opt for loans and deficiency payments to idle a specific portion of their acreage. Producers who voluntarily idle some of their acreage may also receive payments under the paid land diversion program.

Over the years, the Government has also used various measures to reduce the stocks already in CCC storage, including donations to domestic food programs, direct domestic and foreign commercial sales, and payments-in-kind.

In 1977, the CCC instituted the farmer-owned reserve (FOR), which extends nonrecourse loans to farmers for up to 3 years and pays them to store grain in private bins. The FOR enlarged the stocks the Government controls without actually taking possession of them.

One way to reduce supplies and bolster world food security is to export some of the surplus as food aid. PL 480, the common name for the Agricultural Trade Development and Assistance Act of 1954, was originally intended to promote exports of surplus stocks and stimulate trade. But in the years since its passage, PL 480 has become increasingly focused on foreign economic development and humanitarian assistance.

In 1980, Congress passed the Food Security Wheat Reserve Act, authorizing the establishment of a 4-million-ton reserve to meet emergency humanitarian food needs in developing countries.

stocks have averaged about one-quarter of the world total. Nevertheless, the FSA and the droughts of 1988 and 1989 have severely reduced U.S.—and hence world—stocks.

U.S. ending stocks of wheat plummeted in the 1989/90 crop year to their lowest level since 1974/75. Smaller reserves cut the world's total grain stockpile to a 59-day supply in 1989, from 103 days in 1987 and 63 in 1988, according to the Food and Agriculture Organization of the United Nations. While they are expected to recover significantly in 1990/91, stocks still are likely to be at their third lowest level in 15 years.

Falling U.S. and world wheat stocks led to higher world wheat prices, which in turn may have impaired the ability of developing countries to make purchases on world markets. "In 1988/89, average U.S. market prices surged about 45 percent over the previous year, and remained essentially at this level in 1989/90," Smith says. These

higher prices may have hampered countries trying to import wheat, but they also likely encouraged greater U.S. wheat production and may have helped increase production of indigenous agricultural products in importing countries. However, if the government of an importing country did not allow its domestic prices to rise, production would be expected to stay fairly constant, necessitating costly commodity imports. Such a situation could hurt that country's food security.

What's Ahead for Food Security?

In 1990/91, concern over world food security will likely ease, Smith says, given the estimated increase in world and U.S. grain production, higher world and U.S. wheat stocks, and lower wheat prices. In particular, the 1990 U.S. winter wheat harvest—expected to reach roughly 2.09 billion bushels—will be the most bountiful in 9 years and will help bolster supplies and stocks. (Winter wheat constitutes about 75 percent of U.S. wheat production.)

U.S. wheat ending stocks are estimated to surge about 70 percent, but world wheat stocks are expected to rise only 12 percent, keeping them well below the recent 5-year average. U.S. wheat prices are expected to average 11-12 percent below their 1989/90 level.

The 1990 farm bill and negotiations concerning agriculture under the General Agreement on Tariffs and Trade will likely have profound and long-lasting effects on future world food security, Smith says. Despite the FSA, the Government remains heavily involved in the farm sector.

Progress in the multilateral trade negotiations may help ease trade barriers and reduce worldwide government involvement in the agricultural sector. And a more liberal trade environment will present developing countries with economic risks as well as opportunities.

For instance, if exporting nations pursue policies that reduce stocks, importing countries will no longer be able to rely on large foreign reserves. Developing nations that import grain would lose the export subsidies they receive from some suppliers, which could raise the cost or trim the volume of imports.

On the other hand, higher priced imports may engender increased production among their own producers, provided these producers can obtain the higher prices for their output. New solutions will be needed to ensure international food security in an era of more balanced supply and demand, the economist concludes. □

[Based primarily on information provided by economist Mark E. Smith of the Commodity Economics Division, Economic Research Service.]

Diet-Health Messages Sometimes Garbled

Americans are more aware of the connection between dietary fat and coronary heart disease than ever before, but that information isn't necessarily being converted into leaner diets.

"General awareness of links between diet and health has resulted in fairly striking differences among Americans in their sources of dietary fat, but these changes have had no net effect on total fat intake," says economist Daniel Putler of USDA's Economic Research Service.

Putler and fellow ERS economist Betsy Frazao looked at the effects of nutrition education programs on the amounts and types of fat in Americans' diets.

In an analysis of several surveys from both the 1970's and 1980's that quizzed Americans on eating habits and health issues, Putler and Frazao have traced the growing concern shown by many persons to fat in the diet. They've also tracked the way demographic factors of education and income affect Americans' changes and choices of the sources of dietary fat.

'Awareness of the link between heart disease and fat intake has increased.'

"Efforts to inform the public about fat intake as a possible risk factor for coronary heart disease (CHD) started with nutrition education programs undertaken by the American Heart Association as early as the mid-1950's," notes Putler.

Compaigns Have Expanded

By the mid-1980's, say Putler and Frazao, these efforts had expanded in the wake of further evidence on the dietary fat-heart disease connection and growing research on the possible links between fat intake and certain types of cancer.

"As a result of these campaigns," Putler says, "awareness of the link between CHD and fat intake has increased substantially over time. The measure of awareness that has most consistently been used through time is the percentage of people who respond to an open-ended question that dietary fats or fatty foods are a major cause of CHD."

Survey data collected by the federal Food and Drug Administration, the National Heart, Lung, and Blood Institute, and others indicate that public awareness of this relationship was only 8 percent in 1970, but had risen to 29 percent by 1983 and to 55 percent by 1988.

However, the awareness level has not increased uniformly across all social and economic groups.

"Although all segments of society have shown increases in awareness through the course of these education efforts, the rate of this increase has varied for different demographic groups so that, at any given moment in time, there can be substantial differences in awareness levels across demographic groups," says Putler. "In particular, the rate at which awareness levels increase varies substantially across education groups."

Americans with more education usually learn of the possible links between fat intake and CHD before those with less education.

"As a consequence," Putler says, "there was little difference in awareness levels across education groups in 1977, but by 1983 and 1986 these differences were clearly evident."

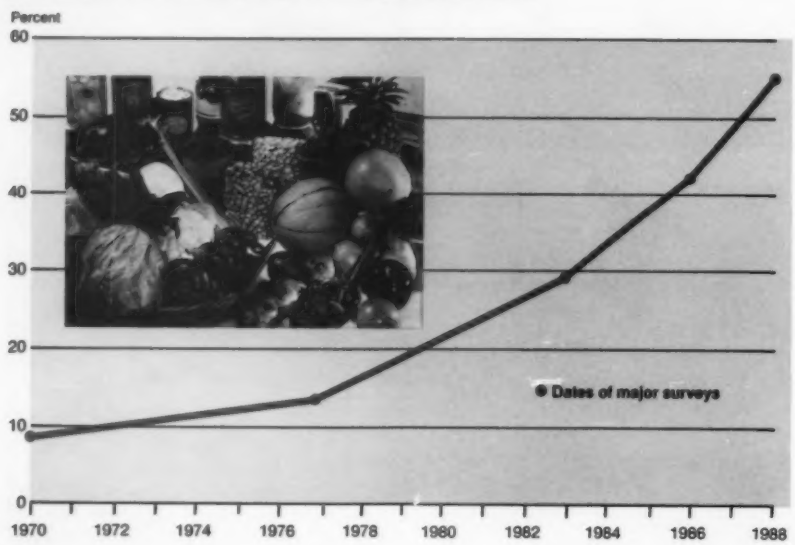
Those Americans being left behind were—in addition to being less educated—generally poor and nonwhite.

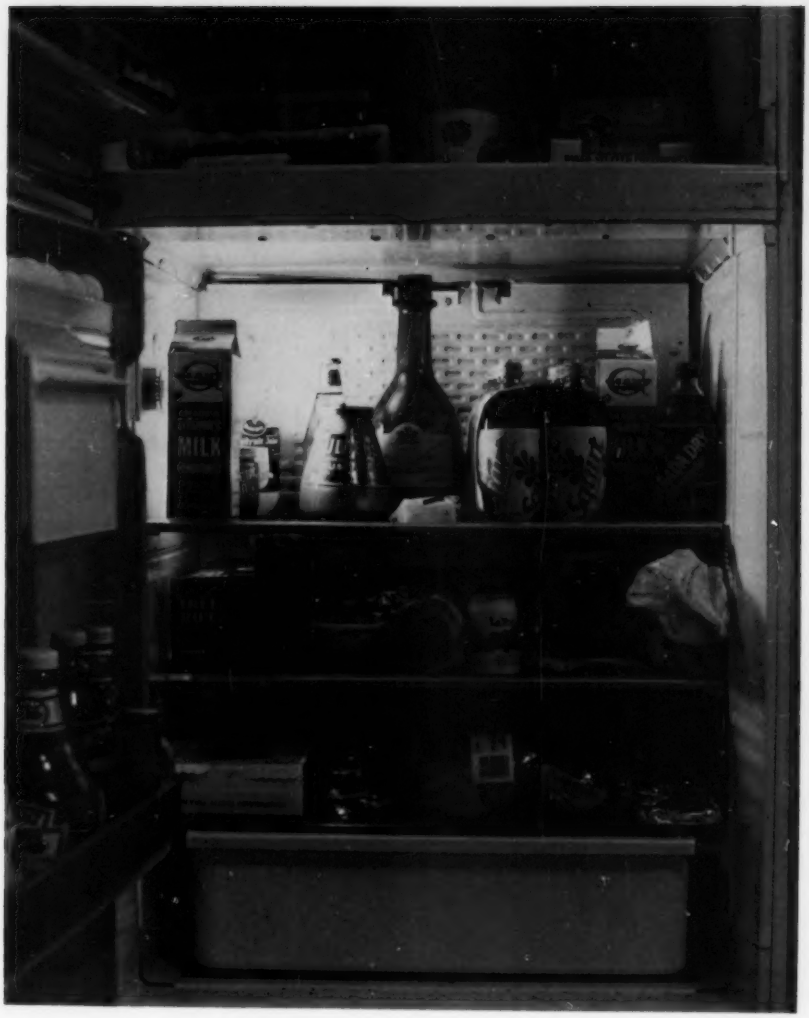
Even so, the best educated Americans are not reducing their overall fat intake below the levels of the least educated ones.

"Americans at all education levels apparently lowered their fat intake between 1977 and 1985," says Putler. "However, there were no real differences in fat intake across different education groups in either 1977 or 1985."

He goes on to say that there "are several possible reasons why there was a uniform

By 1988, More Than Half of All Americans Were Aware of Links Between Fat Intake and Coronary Heart Disease





reduction in fat intake across education levels, rather than the differential rates we would expect based on differences in diet-health awareness levels."

Perhaps the most plausible explanation is a change in food formulation and practice, such as closer trimming of fat from meats.

Another possibility, says Putler, is that there could simply be little relationship between awareness and behavior.

Probing this issue further, Putler and Frazao found that "those individuals with very specific dietary knowledge had successfully lowered their fat intake by 1985, but those with more general knowledge had not. And given the apparent lack of effect of differences in education (and consequently general diet/health awareness) on total fat intake, the question arises as to whether or not this is due to a lack of dietary changes or changes that are offsetting."

Answering that question revealed that nutrition education campaigns have had an effect on eating habits—but not exactly the effect that had been intended.

"If we look at changes in the contribution of different food groups to total dietary fat—measured as the change in the share of total fat that can be attributed to each food group—we find that there have been some very large changes," says Putler. "Specifically, the share of dietary fat from red meats and eggs has generally declined, while the share of fat from most other foods has increased."

The four food groups that showed the greatest changes in share between 1977 and 1985 were red meats and eggs; grains, legumes, vegetables, and fruits (including baked goods and other dishes that contain no animal or dairy protein); meat and dairy mixtures (dishes that contain meat and/or dairy protein in addition to grains or other plant foods, such as pizza, fast food sandwiches, and some frozen dinners); and dairy products. Putler and Frazao found that women with the most education made the largest changes in the relative importance of the four groups in providing dietary fat. (Data from USDA's "Continuing Survey of Food Intakes by Individuals," which Putler and Frazao use, concentrate on women).

"This is consistent with the notion that groups of women with higher levels of diet and health awareness (such as more educated women) should, on average, exhibit greater dietary changes if changes in awareness translate into changes in behavior," Frazao says. "It appears that women who have made dietary changes have been basically trading off fats from red meats and eggs for fats from dairy products and grains, legumes, vegetables, and fruits, while increases in fat from meat and dairy mixtures have been fairly uniform across education groups."

Other Factors Cited

Frazao adds that there are other factors besides education behind the changes from

(continued on page 10)

Dialing Up Economic Information

Need economic information or data on today's, tomorrow's, or even yesterday's agriculture? The economists, statisticians, and other specialists of the Economic Research Service and National Agricultural Statistics Service may be able to help. Here is a brief telephone guide that you can pull out and add to your files. Generally, those listed with an "S" for "Statistics" can give you data on acreage, yield, production, livestock numbers, and stocks. Those identified with an "E" for "Economics" can help with supply-demand-price questions and other economic issues. All telephone numbers can be reached by dialing area code 202.

CROP AND LIVESTOCK SPECIALISTS

Aquaculture		
Ron Sitzman	S	447-3244
Robin Roark	S	447-6147
Dave Harvey	E	786-1888
Coffee & Tea		
Fred Gray	E	786-1888
Cold Storage		
John Lange	S	382-9185
Cotton		
Roger Latham	S	447-5944
Robert Skinner	E	786-1840
Scott Sanford	E	786-1840
Carolyn Whitton (World)	E	786-1826
Dairy Products		
Dan Buckner	S	447-4448
Jim Miller	E	786-1770
Sara Short	E	786-1770
Feed Grains		
Charles Van Lahr	S	447-7389
Larry Van Meir	E	786-1840
Peter Riley (World)	E	786-1825
James Cole	E	786-1840
Floriculture		
Jim Brewster	S	447-7688
Doyle Johnson	E	786-1884
Food Grains		
Vaughn Siegenthaler —Wheat	S	447-8068
Ed Allen—Wheat	E	786-1840
Tom Kurtz—Rice	S	447-2157
Edwin Young—Rice	E	786-1840
Janet Livezey—Rice	E	786-1840
Sara Schwartz (World Rice & Wheat)	E	786-1825
Fruits & Nuts		
Jim Brewster	S	447-7688
Jim Smith	S	447-5412
Kate Buckley	E	786-1885
Boyd Buxton	E	786-1885
Hay		
Darwin Ransom	S	447-7621
Larry Van Meir	E	786-1840
Honey		
Thomas Kruchten —Production	S	475-4870
R. Schuchardt—Prices	S	475-3236
Fred Hoff	E	786-1883
Livestock		
Steve Noyes—Cattle	S	447-3040
Ron Gustafson—Cattle	E	786-1285
Gene Danekas—Hogs	S	447-3106
Warren Jesse—Hogs	E	786-1768
B. McCullough—Sheep	S	447-3578
Richard Stillman—Sheep	E	786-1285
Shayle Shagam (World)	E	786-1285
Mink		
Tom Kruchten	S	475-4870
Peanuts		
Roger Latham	S	447-5944
Jim Schaub	E	786-1840
Bob Cummings (World)	E	786-1826
Potatoes		
Arvin Budge	S	447-4285
Glenn Zepp	E	786-1882
Catherine Greene	E	786-1886
Poultry—Broilers, Turkeys, Eggs		
Ron Sitzman	S	447-3244
Robin Roark	S	447-6147
Tom Kruchten	S	475-4870
Lee Christensen	E	786-1714
Larry Witucki (World)	E	786-1766
Oilseeds—Soybeans, Sunflowers		
Herb Vanderberry	S	447-9526
Roger Hoskin	E	786-1840
Jim Schaub	E	786-1840
Bruce Wendland	E	786-1840
Bob Cummings (World)	E	786-1826
Sugar & Sweeteners		
Darwin Ransom	S	447-7621
Robert Barry	E	786-1888
Peter Buzzanell	E	786-1888
Tobacco		
Darwin Ransom	S	447-7621
Verner Grise	E	786-1890
Tom Capehart	E	786-1890
Vegetables		
Jim Brewster—Fresh	S	447-7688
Arvin Budge—Processed	S	447-4285
Jim Smith	S	447-5412
Shannon Hamm	E	786-1886
Gary Lucier	E	786-1884
Catherine Greene	E	786-1886
Wool & Mohair		
Bernard McCullough	S	447-3578
John Lawler	E	786-1840

U.S. TRADE & FOREIGN AGRICULTURE

Africa & Middle East		
Michael Kurtzig	E	786-1680
Asia		
Rip Landes	E	786-1664
Canada		
Mark Simone	E	786-1610
China		
Francis Tuan	E	786-1620
Developing Economies		
Gene Mathia	E	786-1680
Eastern Europe		
Kenneth Gray	E	786-1621
Robert Koopman	E	786-1621
Nancy Cochrane	E	786-1621
Soviet Union		
Kathryn Zeimetz	E	786-1624
Exports & Imports		
Thomas Warden	E	786-1822
Steve Milmoe—Exports	E	786-1821
Steve MacDonald —Statistics	E	786-1822
Karen Ackerman —Programs	E	786-1821
Food Aid		
Mike Kurtzig	E	786-1680
Mark Smith	E	786-1820
Latin America		
John Link	E	786-1680
Pacific Rim		
Carol Goodloe	E	786-1610
Trade & Finance Policy		
Steve Magiera	E	786-1790
Jerry Sharples	E	786-1791
Tim Baxter	E	786-1705
David Stallings	E	786-1705
Vernon Roningen	E	786-1790
Western Europe		
Walt Gardiner	E	786-1610

AGRICULTURAL FINANCES

Agricultural Finances		
Jim Johnson	E	786-1800
Duane Hacklander	E	786-1798
Cash Receipts		
Roger Strickland	E	786-1804
Connie Dixon	E	786-1804
Costs & Returns		
Mitch Morehart	E	786-1801
Mary Ahearn	E	786-1801

Credit

Jerry Stam	E	786-1892
Jim Ryan	E	786-1798
Pat Sullivan	E	786-1719

Financial Markets

Pat Sullivan	E	786-1719
Tim Baxter (World)	E	786-1705

Futures Markets

Richard Heifner	E	786-1868
Ken Nelson—Livestock	E	786-1712
Joe Glauber—Crops	E	786-1840

Income

Diane Bertelsen—Farm	E	786-1807
Roger Strickland—Farm	E	786-1804
Mary Ahearn—Farm Household	E	786-1801

Prices, Parity, & Indexes

John Buche—Received	S	447-5446
Doug Kleweno—Paid	S	447-4214
Robert Milton	S	447-3570

Production Costs

Doug Kleweno	S	447-4214
Robert Dismukes—Crops	E	786-1801
Jim Miller—Dairy	E	786-1710
Hosein Shapouri —Livestock	E	786-1714
Ron Lord—Sweeteners	E	786-1888
Annette Clauson —Tobacco	E	786-1891

Subsidies

Harry Baumes	E	786-1689

Taxes

Ron Durst	E	786-1897
Ron Jeremias	E	786-1896

Wages & Labor

Tim Placke	S	475-3228
Robert Coltrane	E	786-1932

FARMS & LAND

Corporate & Family Farms

Donn Reimund	E	786-1523

Farm Numbers

Daryl Brinkman	S	475-3226

Farm Output & Productivity

Jim Hauver	E	786-1433
Francis Urban (World)	E	786-1717

Farm Real Estate

Roger Hexem	E	786-1419

Foreign Land Ownership

Peter DeBraal	E	786-1425

Land Ownership & Tenure

Gene Wunderlich	E	786-1425

Land Use Planning

Ralph Heimlich	E	786-1420

Land Use Statistics

Arthur Daugherty	E	786-1424

FOOD

Food Policy

Dave Smallwood	E	786-1864
Susan Pollack	E	786-1689
Paul Westcott	E	786-1840
Sam Evans	E	786-1840
Jerry Sharples (World)	E	786-1632

Food Assistance & Nutrition

Dave Smallwood	E	786-1864

Food Away From Home

Harold Linstrom	E	786-1866

Food Consumption

Judy Putnam	E	786-1870

Food Demand & Expenditures

Richard Haidacher	E	786-1862
Dave Stallings (World)	E	786-1705

Food Manufacturing & Retailing

Charles Handy	E	786-1866

Food Prices & Consumer Price Index

Ralph Parlett	E	786-1870
Denis Dunham	E	786-1870

Food Safety & Quality

Tanya Roberts	E	786-1864

Food Wholesaling

Walter Epps	E	786-1866

Marketing Margins & Statistics

Denis Dunham	E	786-1870
Howard Elitzak	E	786-1870
Charles Handy	E	786-1866

Meat Price Spreads

Larry Duewer	E	786-1712
Ken Nelson	E	786-1712

RURAL DEVELOPMENT

Agriculture & Community Linkages

Fred Hines	E	786-1525

Community Development

David Sears	E	786-1544

Credit & Financial Markets

Pat Sullivan	E	786-1719
Jerry Stam	E	786-1892

Employment

Leslie Whitener	E	786-1540

Income & Poverty

Peggy Ross	E	786-1547
Robert Hoppe	E	786-1547

Labor

David McGranahan	E	786-1532

Local Government Finance

Richard Reeder	E	786-1544

Rural Development

David McGranahan	E	786-1532
Norman Reid	E	786-1520

OTHER TOPICS

Agricultural History

Douglas Bowers	E	786-1787

Biotechnology

John McClelland	E	786-1433
Richard Fallert—Dairy	E	786-1710

Commodity Programs & Policies

Sam Evans—Crops	E	786-1840
Paul Westcott—Crops	E	786-1840
Richard Fallert—Dairy	E	786-1710
Karen Ackerman —Exports	E	786-1821
Jerry Sharples (World)	E	786-1632

Economic Linkages To Agriculture

William Edmondson	E	786-1785

Energy

Mohinder Gill	E	786-1456
Rich Nehring	E	786-1459

Farm Labor Market

Robert Coltrane	E	786-1932

Farm Machinery

Marlow Vesterby	E	786-1422

Farm Structure

Donn Reimund	E	786-1522

Fertilizer

Harold Taylor	E	786-1469

Macroeconomic Conditions

John Kitchen	E	786-1782
Tim Baxter (World)	E	786-1705

Natural Resource Policy

Dave Ervin	E	786-1401
Francis Urban (World)	E	786-1705

Pesticides

Herman Delvo	E	786-1456

Population

Calvin Beale	E	786-1534
Frances Urban (World)	E	786-1705
Linda Swanson	E	786-1534

Soil Conservation

Tim Osborn	E	786-1401

Transportation

T. Q. Hutchinson	E	786-1840

Water & Irrigation

Marc Ribaudo	E	786-1444
John Hostetler	E	786-1410

Water Quality

Marc Ribaudo	E	786-1444
Steve Crutchfield	E	786-1444

Weather

Tom Kurtz	S	447-2157
Ken Baum	E	786-1433

1977 to 1985 in the relative importance of different food groups in providing dietary fat: whether or not the woman is black, whether or not the woman is on a medically prescribed or self-initiated special diet; and whether or not there is a male head present in the household.

"Black women received a higher share of fat from red meats and eggs and a lower percentage of fat from grains, legumes, vegetables, and fruits than did white women in 1985, patterns that did not exist in 1977," Frazao says. "Women on special diets had a lower share of fat from red meats, dairy and meat mixtures, and animal food fats, and a higher share of fat from poultry in 1985 compared to women not on a special diet. None of these differences existed in 1977."

And women in households with a male head consumed a significantly higher share of fat from red meats in 1985 compared to women in households without a male head. A likely explanation for this is that a woman's food choices are influenced by the male head of the household. Existing data indicate that men are less aware than women of dietary fat effects.

From these findings, Putler and Frazao are willing to draw some tentative conclusions.

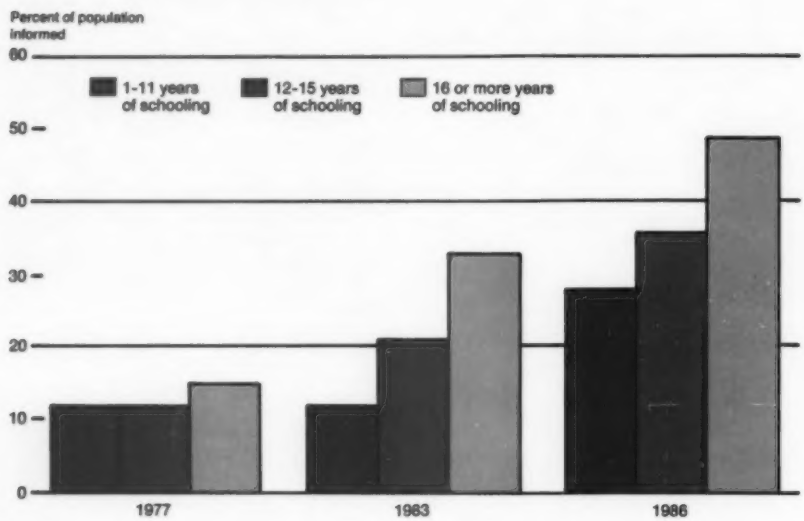
"Nutrition education efforts appear to have resulted in dietary 'balloon' effects," says Frazao. "If total fat intake is viewed as a partially inflated balloon, then the effect of nutrition education efforts was to push down on one area of the balloon (for example reducing fat intake from red meats)." However, "at the same time the balloon expanded in other directions, such as the increase of fat intake from dairy products, so that the actual volume of the balloon remained steady," she says.

Frazao says that these "balloon" effects are probably the result of consumers converting nutrition information into simple "good-bad" rules of thumb that can be ineffective.

More recent research bears out this idea and suggests that consumers tend to lump food into one of three categories: good, bad, and neutral.

"Frequently, this process of categorizing is based on only partial information," says Frazao. "For instance, if consumers know that a particular food product is low in cholesterol, they will infer that it is also low in fat (particularly saturated fat) and calories, and is, therefore, a good food."

Better Educated Americans Are More Aware of the Connection Between Dietary Fat and Heart Disease



Unfortunately, these inferences about products based on partial information are often wrong.

Indirect Effects, Too

One other effect of nutrition programs deserves mention, says Frazao.

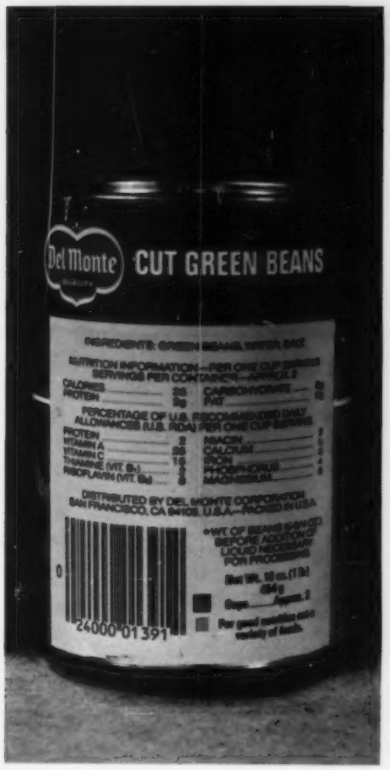
"Nutrition education programs may have indirect effects on the diets of consumers who are unaware of the informational content of a program," she says. "These indirect effects are a result of movements away from a product perceived as high in fat, like red meats, by aware consumers. This induces producers and retailers to either alter existing products through reformulation, breeding changes, altering trim or other practices so that the product is lower in fat, or induces these groups to create new low-fat products. In turn, unaware individuals consume the new lower fat products, benefiting from the actions of aware consumers."

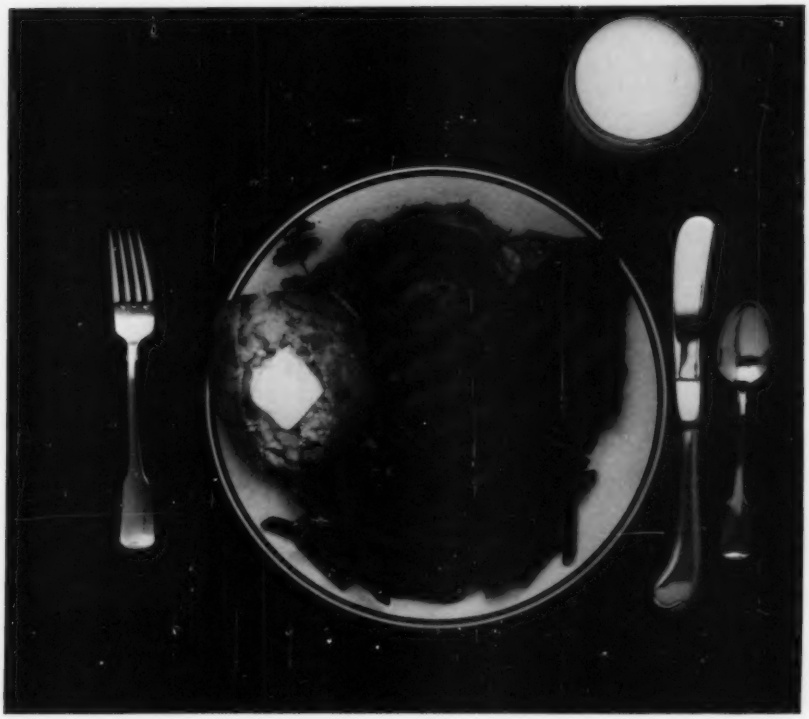
By pointing out the unintended and indirect effects of nutrition education programs, Putler and Frazao aren't questioning the need for such programs.

What they are saying is that these programs do not always produce the expected results.

"The designers of public nutrition education programs, as well as other risk communication programs, need to recognize that the information provided may be converted into simple rules of thumb by the public," says Frazao. "Consequently, great care needs to be taken to design information formats and messages that can be easily translated by consumers into rules that enable them to achieve the goals of these programs." □

[Based primarily on information provided by economists Daniel Putler and Elizabeth Frazao of the Commodity Economics Division, Economic Research Service.]





World Food-Aid Efforts Become More Altruistic

Food-aid policies and programs are changing. Donor nations, including the United States, are putting more emphasis on the needs of the recipient countries and less on their own domestic concerns, two USDA economists say.

The economists, Shahla Shapouri and Margaret Missiaen of the Economic Research Service, studied the international food-aid programs to evaluate trends and donor nations' criteria for providing aid. Such information would be valuable for predicting what might happen if food-emergency stocks run low.

The study examined the motives of producer countries in providing food aid to other countries. The economists sought to determine to what extent food-aid programs were designed as an outlet for surplus commodities, as a means of developing markets for commodities, or as assistance for people in need.

Also, the economists report, surplus-distribution programs require internal political support. A government must balance the interests of the growers and the taxpayers with its objectives for national security and foreign policy. While farmers and ranchers may favor measures to keep production low and commodity prices high, foreign-policy planners may favor greater production and lower prices to continue support for economically underdeveloped but strategically important countries.

Most of the grain donated worldwide comes from the United States.

The economists developed their data from studies of the food-aid programs of the United States, Canada, and the European Community (EC). Since the early 1970's these three donors have been the principal sources of worldwide food assistance, providing about 7 of every 8 tons of grain food aid delivered.

Wheat and wheat products constitute about 83 percent of the tonnage of food aid shipped. Other donated commodities are coarse grains, rice, vegetable oils, beans, fish, and—until recently—dairy products. In the late 1980's, both the United States and the EC adopted policies that substantially reduced their dairy product surpluses.

Focus on Recipients

Over the years, the economists report, food aid has grown more "humanitarian," with assistance based on recipient needs. Also, there has been an expansion of multilateral programs in which organizations such as the World Food Program of the United Nations jointly help distressed nations. About one-fourth of the grain aid is now provided multilaterally.

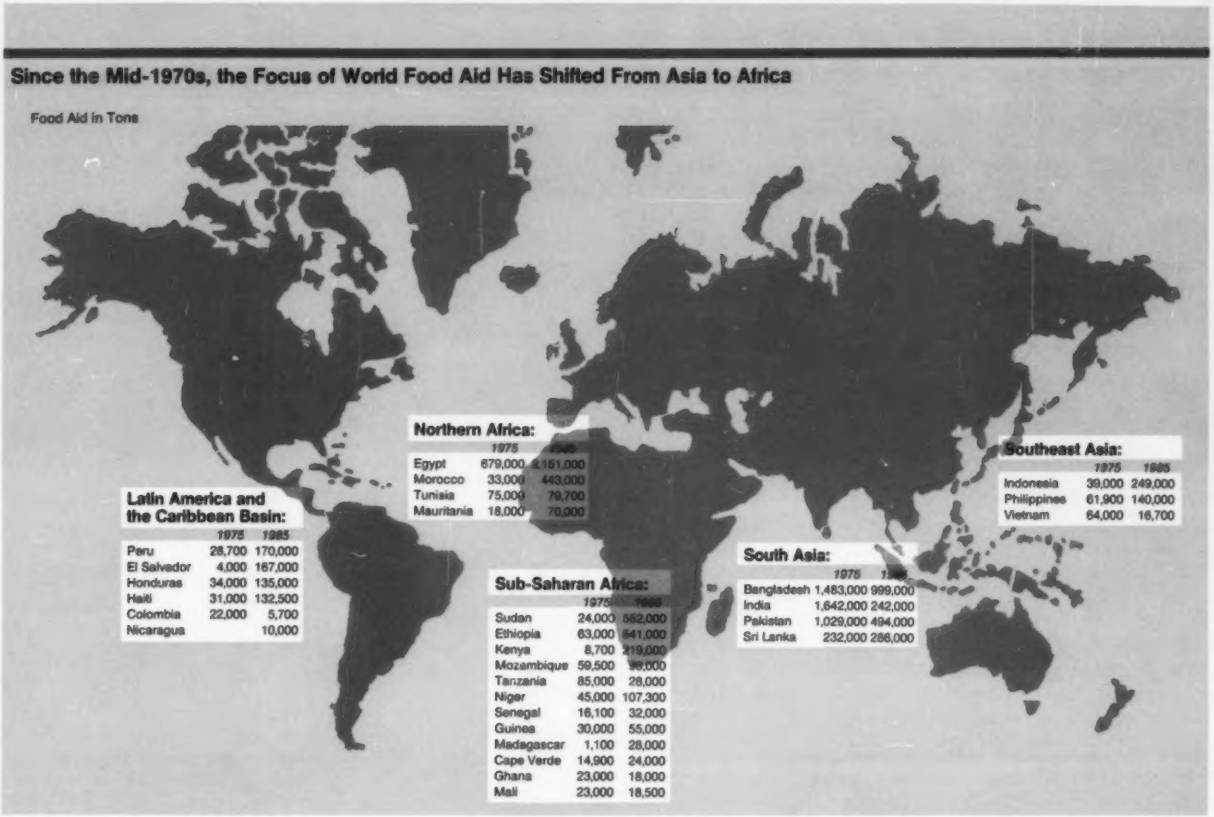
Shapouri and Missiaen found that the United States has been the world's principal source of food aid, but that U.S. assistance has declined both in tonnage and in relation to donations by the EC and Canada. Even so, more than half of the grain aid donated worldwide continues to come from the United States, as it has for the past 25 years.

Another distinguishing feature of the U.S. food-aid programs is that they are administered jointly by agencies in USDA that oversee agriculture and support farm production, and by the State Department, which is concerned with foreign policy. In other nations, the programs are run by agencies responsible for foreign policy. Until 1986, the EC's farm-policy managers also ran the Community's food-aid programs.

In addition to the two agencies with primary responsibilities for administering U.S. food-aid programs—the State Department (foreign relations) and USDA (agriculture)—the planning for food aid is shared with the Office of Management and Budget and the Treasury Department, which are concerned with program costs. "Different objectives and issues are debated throughout the budget-making process," she says.

The United States has provided food assistance since the end of World War II, when it helped to feed Europe as part of the Marshall Plan. The food support helped create new markets for U.S. farm products.

Since the Mid-1970s, the Focus of World Food Aid Has Shifted From Asia to Africa



In 1954, the United States enacted its major food-assistance program, the Agricultural Trade Development and Assistance Act (commonly known as Public Law 480 or PL 480). This program allows the United States to export commodities under long-term, low-interest loans. The payments can be deferred if the funds are spent on economic development in the recipient country.

In the decade following passage of PL 480, roughly half of the U.S. grain exports were shipped as food aid. Some of the importing countries objected that the food assistance was hindering domestic agriculture because their farmers could not produce at prices competitive with the discounted U.S. commodities. The European Community was especially concerned.

Widening the Operations

The decline in the U.S. grain surplus in the 1960's and the growing need, particualrly in Asia, were the reasons for the United States to propose a food-aid program involving the largest producing nations, with several governments agreeing to provide some minimum amount of aid. The Food Aid Convention, first negotiated in 1967, has been regularly renewed and reapproved. Shapouri describes the convention as "a major step" for the United States because it brought other countries into the aid programs but still the United States remained the major food-aid contributor. It was also significant for the EC, then six members. The Community agreed to help provide some of the cereals, although it was not producing any grain surpluses, and it further agreed to distribute its own surpluses, notably butter and milk powder.

For the EC, the Food Aid Convention meant that EC members who were not major agricultural producers agreed to finance food-aid shipments from producing members. Shapouri says that most of the data about EC food aid is reported as pooled operations and that it is difficult to obtain information on food aid from individual countries. Britain, for example, finances aid shipments of food supplied by France and West Germany.

EC food-aid policies are based on humanitarian concerns, but individual country policies include domestic interests, Shapouri says. The impacts of EC food-aid policies have been evaluated and attempts have been made to make them more responsive to recipients' needs. To accomplish this, the recent program of trilateral transactions has been implemented in which a donor country

funds purchases from a food-surplus less developed country for delivery to a food-deficit country. Currently, approximately 10 percent of the EC food-aid budget is allocated to this program.

Trilateral aid usually has high transportation costs, Shapouri says, because the donor is obtaining the food from another developing country where the transportation infrastructure is poor.

Canada's food-aid programs, like those of the United States, were established largely to dispose of surplus production. Canada has donated food since the early 1950's. Unlike the PL 480 programs, which are largely concessional sales, Canadian aid has always been provided as a grant.

Shapouri and Missiaen evaluated the 1975 and 1985 aid programs by comparing the different circumstances in the donor and recipient countries. More aid was given in 1985, and it was more widely dispersed. Also, the major recipients of the food aid were in Africa instead of South Asia.

The major recipients of U.S. food aid in 1975 were Bangladesh (28 percent), India (28 percent), Pakistan (19 percent), and Egypt (14 percent). All other recipients had shares of 4 percent or less. In 1985, Egypt received 29 percent of the U.S. food aid, while the No. 2 recipient, Sudan, had a 7-percent share, and the remaining countries received 6 percent or less.

In 1975, more than one-fourth of the EC's food-aid volume was distributed to three nations—Bangladesh and India, 10 percent each, and Egypt, 7 percent—while the remaining shares were 3 percent or less. In 1985, the largest segments of EC aid went to four nations—Ethiopia 12 percent, Bangladesh 6 percent, and Egypt and Pakistan 5 percent each. The remaining shares were 4 percent or less.

Nearly three-quarters of Canada's 1975 food-aid tonnage went to three nations—India 35 percent, Pakistan 21 percent, and Bangladesh 18 percent—with the remaining shares at 4 percent or less. In 1985, three nations received more than half of Canada's food aid—Bangladesh 41 percent, Sri Lanka 9 percent, and Ethiopia 7 percent. The remaining portions were 3 percent or less.

Food Aid to 20 Countries in 1985 Totaled at Least 11 Pounds Per Person

Country	Aid per person	Main donor
	pounds	
Cape Verde	254	EC
Mauritania	131	EC
Jamaica	124	U.S.
Egypt	90	U.S.
El Salvador	73	U.S.
Lesotho	56	U.S.
Haiti	48	U.S.
Sudan	47	U.S.
Honduras	47	U.S.
Morocco	41	U.S.
Bolivia	38	U.S.
Mali	30	U.S.
Dominican Republic	29	U.S.
Lebanon	25	Canada
Nicaragua	20	EC
Ethiopia	20	EC
Mozambique	16	EC
Sri Lanka	15	Canada
Gambia	11	EC
Bangladesh	11	Canada

Sources: United Nations and USDA's Economic Research Service.

Reasons for Giving

Having identified the recipients in the sample years, the two ERS economists sought to examine what influenced the donors' choices. The principal variable was the availability of stocks the countries had to have or obtain to donate.

Government budget circumstances were significant factors in the food-aid program in the United States and Canada, less so in the EC. Both North American nations reduced their aid when pressures of agricultural program outlays grew. The U.S. aid program also was significantly altered by the change in commercial market demand. Shapouri and Missiaen determined that EC aid was less influenced by government budget considerations and market forces. However, the use of Community-wide data may have masked the effects of these variables.

Shapouri and Missiaen looked at the distressed countries for common characteristics that might have influenced the donors. The most powerful factors were (1) a trend of low food production and (2) an economic relationship with the donor country. Countries that had chronic food production failures were far more likely to receive aid.

Trading relations between the needy country and the donor also influenced aid. Countries that had stronger trade ties with the donor countries were more likely to receive assistance. The United States has directed aid toward Latin American and Caribbean countries with which it has strong trade relations. Canada has assisted fellow members of the Commonwealth of Nations, and the EC has helped former colonies of member countries.

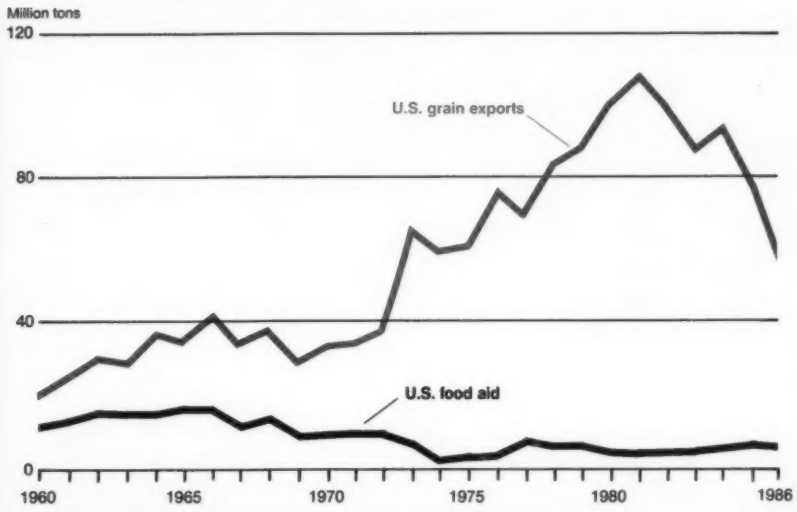
In contrast to EC and Canadian aid programs, the ERS economists found, U.S. food-aid policy is more likely to be influenced by the political ideologies of recipient countries. There is also a particular sensitivity in the U.S. Government to public opinion, Shapouri notes.

Multilateral food-aid programs are generally more responsive to the needs of the recipients, are less influenced by political matters, and are gaining increased donor acceptance, Missiaen and Shapouri report. But the economists also have found that multilateral programs are not as responsive to emergency food needs, partly because these programs are complex and partly because individual donors have greater resources than the multilateral agencies.

Meeting the most pressing food-aid needs, Shapouri says, could likely be achieved with only modest increases in the levels of assistance. □

[Based largely on information supplied by Shahla Shapouri and Margaret Missiaen of the Agriculture and Trade Analysis Division, Economic Research Service.]

Food Aid Accounted for a Much Larger Share of U.S. Grain Exports in 1960-72 Than in 1973-86



Sources: USDA's Economic Research Service and National Agricultural Statistics Service.

REPORTS IN THE NEWS

Farm Structure: How It's Changing

Large farms in the United States are controlling a significantly greater share of farmland and farm product sales.

Such farms have acquired more resources and captured higher sales, according to the author of this report, primarily because they quickly responded to price changes by altering the mix of land use and by using rental arrangements instead of buying or selling land.

The report examines changes in farm product sales, farmland acreage, and land tenure, using data from the agricultural censuses of 1969, 1974, 1978, and 1982.

Large farms (those with $100,000 or more in annual sales) more than doubled their share of sales of farm products between 1969 and 1982, while medium and small farms lost half their share. Product sales per acre of land doubled for large farms, decreased for medium farms ($20,000-$99,999 in annual sales), and remained unchanged for small farms ($2,500-$19,999 in annual sales).

Small farms accounted for 39 percent of the Nation's harvested cropland in 1969 but only 18 percent in 1982. Medium farms had 49 percent in 1969 and 51 percent in 1982, and large farms had 12 percent in 1969 and 31 percent in 1982.

Structural change can produce social costs in rural communities, the author of the report points out. Resource concentration on large farms, for example, results in decreased farm numbers. Rural areas experiencing such concentration lose population, rural services, and income as operators of small and medium farms leave agriculture.

Structural Change in U.S. Farmland, by Robert C. Reining. Published June 1990; 24 pages; $8 ($10 to non-U.S. addresses).

World Subsidies: New Estimates

This bulletin contains estimates of producer and consumer subsidy equivalents (PSE's and CSE's) for more than 40 agricultural commodities and products in 27 countries and the European Community for the years 1982 through 1987. ERS analysts calculated these summary measures to support negotiations to liberalize agricultural trade under the General Agreement on Tariffs and Trade (GATT).

PSE's and CSE's measure the subsidies or taxes on producers and consumers, respectively, resulting from government food and agricultural policies. Subsidy equivalents provide a framework for quantifying the income effects of a wide range of domestic agricultural and trade policies for various countries and commodities. PSE and CSE estimates, therefore, are particularly useful for comparing levels and sources of agricultural support across countries and serve as a basic quantitative policy database for analyzing agricultural trade liberalization and policy reform, the authors of this report say.

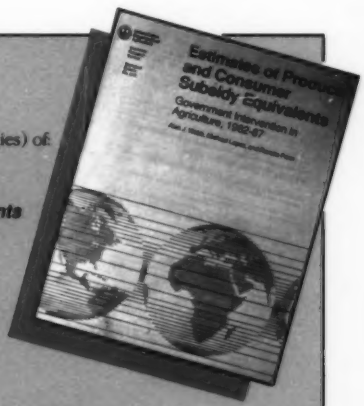
This is the second year that the ERS subsidy equivalent calculations have been published. In addition to updating the estimates through 1987, country coverage was expanded by 11 to include Bangladesh, Chile, China, Colombia, Egypt, Kenya, Poland, Senegal, Turkey, the Soviet Union, and Yugoslavia. The countries covered represent 78 percent of the world's population and 83 percent of the world gross domestic product. Documentation of policies, estimation procedures, and references has been improved and expanded.

Estimates of Producer and Consumer Subsidy Equivalents: Government Intervention in Agriculture, 1982-87, by Alan J. Webb, Michael Lopez, and Renata Penn. Published April 1990; 364 pages; $14 ($17.50 to non-U.S. addresses).

Mail Order Form To:
ERS-NASS
P.O. Box 1608
Rockville, MD 20849-1608

Please send me ____ copy(ies) of:
Structural Change in U.S. Farmland
AER-617
$8 ($10 outside U.S.)

Please send me ____ copy(ies) of:
Estimates of Producer and Consumer Subsidy Equivalents
SB-803
$14 ($17.50 outside U.S.)



Name _____
Address _____
_____
City, State, ZIP _____
Daytime phone ( ) _____
Total charges $ _____

☐ Enclosed is $ _____ (make check or money order payable to ERS/NASS. Do not send cash.

Charge order to my
☐ MasterCard
☐ VISA

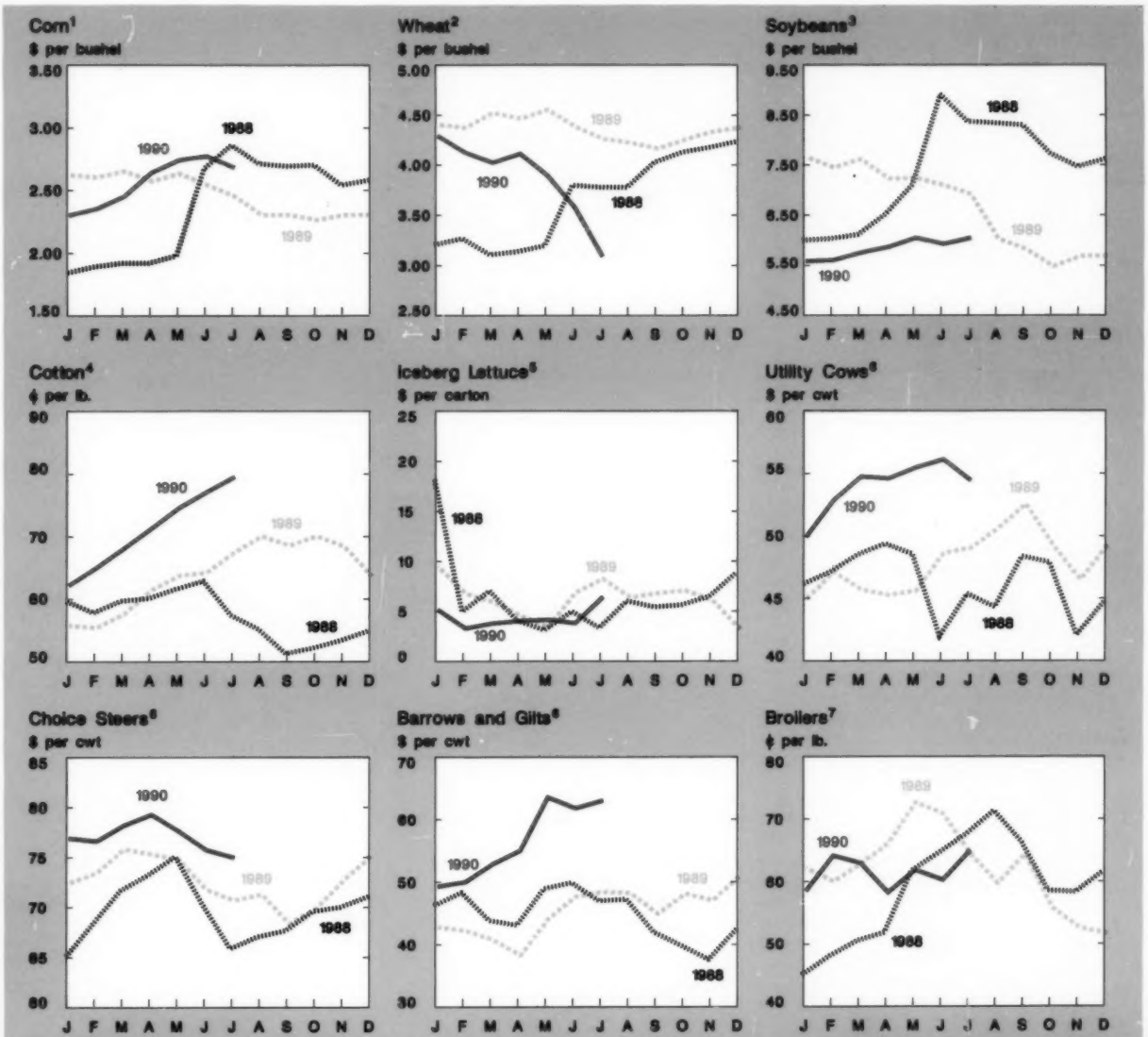
Account Number: ☐☐☐☐-☐☐☐☐-☐☐☐☐-☐☐☐☐
Expiration date: (Month/Year) ☐☐/☐☐

For fast, personal service, call our toll-free number 1-800-999-6779 and charge your order to MasterCard or VISA. Phone lines are open weekdays, 8:30-5:00 Eastern Time.

FARMLINE TRENDS

Monthly Price Monitor

USDA's July 1990 inflation-adjusted index of farm prices was unchanged from June and 2.7% above its year-earlier level. Corn declined to $2.68 per bushel, after 2 months of increases. Wheat dropped to $3.09 per bushel, the lowest since November 1987. Soybeans rose 12 cents to $6.03 per bushel. Cotton continued upward to 79.5¢ per pound, its highest since April 1981. Lettuce shot up to $6.35, the highest thus far this year. Among meat animals, utility cows dropped to $54.37 and Choice steers fell to $74.94, their lowest level this year. Barrows and gilts rose to $62.91 per hundredweight. Broilers advanced to 64.8¢ per pound, their highest level in more than a year.



[1]No. 2 yellow, Central Illinois. [2]No. 1 HRW, Kansas City. [3]No. 1 yellow, Central Illinois. [4]SLM 1-1/16", spot market price. [5]Standard carton 24's, California-Arizona. [6]Omaha. [7]Wholesale, New York. All prices shown are monthly averages.

United States
Department of Agriculture
Washington, DC 20005-4789

OFFICIAL BUSINESS
Penalty for Private Use, $300

To change your address, send mailing label on this magazine and new address to *FARMLINE*, Rm. 228-USDA, 1301 New York Ave. NW, Washington, DC 20005-4789

BULK RATE
POSTAGE & FEES PAID
U.S. Dept. of Agriculture
Permit No. G-145

Subscribe today! Call Our New TOLL-FREE number:

1-800-999-6779

To get the **whole** picture you need **all** the facts. . .

Order these Economic Research Service periodicals:

FARMLINE. Written for farmers, farm-related businesses, and others in agriculture. Concise articles, supported by charts and statistics, explain how the economic environment for agriculture is changing here and abroad. Focus is on the consequences of those changes for people in agriculture.

National Food Review. Covers the latest developments in food prices, marketing margins, consumption trends, nutrition, food retailing, product safety, export opportunities, and processing technology for those who manage or monitor the nation's food system.

Agricultural Outlook. Presents USDA's farm income and food price forecasts. Emphasizes short-term outlook, but also presents long-term analyses. Issues range from trade to commodity supply-demand prospects. Includes more than 20 pages of statistical indicators.

How to order
For fast, personal service, call and order today. Our toll-free lines are open weekdays, 8:30-5:00 Eastern Time. Or complete the order form and return to us.

*Order **now** by calling*
1-800-999-6779

Charge your order to MasterCard or VISA

Please check the appropriate boxes:

	1 Year	2 Years	3 Years
FARMLINE (11 issues per year)			
U.S. addresses	☐ $12	☐ $23	☐ $33
Foreign addresses	☐ $15	☐ $28.75	☐ $41.25
National Food Review (4 issues per year)			
U.S. addresses	☐ $11	☐ $21	☐ $30
Foreign addresses	☐ $13.75	☐ $26.25	☐ $37.50
Agricultural Outlook (11 issues per year)			
U.S. addresses	☐ $26	☐ $51	☐ $75
Foreign addresses	☐ $32.50	☐ $63.75	☐ $93.75

Total charges: $_____

Mail to: ERS-NASS
P.O. Box 1608
Rockville, MD 20849-1608

☐ Enclosed is my check or money order payable to ERS-NASS.
☐ Please bill me.
Charge to my ☐ MasterCard ☐ VISA

Acct. No. _____ Expires _____

Please print or type:

Name _____

Company or organization _____

Street address or P.O. Box _____

City, State, ZIP _____

Day telephone no. ( ) _____